

REMARKS

Reconsideration and allowance of this application are respectfully requested.

Claims 1-32 remain pending. By this communication, claims 33-34 are added.

Rejection Under 35 U.S.C. §101

Claims 1-32 were rejected under 35 U.S.C. §101 as allegedly not being supported by a useful, concrete, and tangible result. Applicants respectfully traverse this rejection.

The Manual of Patent Examining Procedure (MPEP) §2106 and the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, United States Patent and Trademark Office Official Gazette Notices (November 22, 2005) ("*Interim Guidelines*") set forth an approach for determining whether patent eligible subject matter has been claimed in accordance with 35 U.S.C. §101. First, it is determined whether the claimed invention falls within an enumerated statutory category, that is, a process, machine, manufacture, or composition of matter. If the claimed invention is found not to fall within an enumerated statutory category, then it is determined whether the claimed invention falls within a judicial exception, that is, laws of nature (e.g., $f=ma$), natural phenomena (e.g., electricity), or abstract ideas (e.g., mathematical algorithms) (See, *Interim Guidelines* §IV(C)).

Not until it is determined that a judicial exception applies is it determined whether the claimed invention recites a "practical application" of the judicial exception. A practical application can be achieved in one of two ways: (1) by producing a physical transformation, or (2) by producing a useful, concrete, and tangible result (See, *Interim Guidelines* §IV(C)(2)). A physical transformation can be

produced by transforming an article or physical object to a different structural state or thing (See, *Interim Guidelines* §IV(C)(2)(a)).

When no physical transformation is produced, a claimed invention can provide a practical application by producing a "useful, concrete, and tangible" result (See, *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) and *Interim Guidelines* §IV(C)(2)(b)).

The Office concluded on page 2 of the Office action that claims 1-32 are unpatentable under 35 U.S.C. §101 for claiming an invention that "lacks a practical application because a useful, concrete, and tangible result is not produced." Thus, in making this determination, the Office presumably determined that the claims fall within a judicial exception (i.e., are directed to nothing more than laws of nature, natural phenomena, or abstract ideas) and do not provide a practical application of the judicial exception by producing a physical transformation, thereby necessitating the consideration of whether the claims provide a practical application by producing a "useful, concrete, and tangible" result.

Applicants respectfully disagree with the Office's analysis. First, Applicants submit that claims 1-32 fall within the process and machine statutory categories enumerated under 35 U.S.C. §101. Further, for at least the reasons described herein, Applicants submit that claims 1-32 are not directed to nothing more than laws of nature, natural phenomena, or abstract ideas. For example, the specification of the instant application describes an apparatus (and corresponding method) that induces a desired emotion in a user by extracting bioparameters (e.g., heart rate, skin conductive response magnitude, heart rate variability, etc.) from biosignals received from the user, which contain information on the user's heartbeat and skin

resistance, before and after physical signals apply stimuli to the user's body based on a selected emotion induction protocol that corresponds to the desired emotion (See, Specification at page 7). Hence, these are not just abstract ideas, laws of nature, or natural phenomena.

However, even if claims 1-32 are found not to fall within the process and machine statutory categories enumerated under 35 U.S.C. §101, thereby necessitating the determination of whether the claimed invention recites a "practical application" of the judicial exception, Applicants contend that the afore-mentioned claims provide a practical application because a useful, concrete, and tangible result is indeed produced.

The Office Action states the following as an example for the basis of the rejection:

The claims assert an emotion induction protocol that is capable of inducing a desired emotion, however an individual user of the device has their own subjective responses to any given stimuli, and individuals respond differently to the same stimuli. For example, using lavender as a stimulus may be used to relax one user, but another user may be allergic to the stimulus and not create the desired effect to relax a user. Additionally, a lavender scent may be used to relax an individual on one day, yet that same stimulus may not work in the same fashion if that same user has a cold and is unable to use their sense of smell in the same or similar manner.

See, Office Action, page 2. Based on the above, the Office Action appears to conclude that the claims do not produce a concrete result because a desired emotion can not be induced repeatably. Applicants respectfully contend that the Office Action is misinterpreting the emotion inducement functionality of the instant application.

The Office Action states that a user has his or her own subjective responses to any given stimuli and that individuals respond differently to the same stimuli. Because this may be the case, in one embodiment of the instant application, after the physical signals are outputted to the user to stimulate the user's body with the desired emotion, it is determined whether the desired emotion has actually been induced based on increase/decrease patterns of the extracted bioparameters before and after the physical signals are applied to the user's body (See, Specification at page 9). If it is determined that the desired emotion has not been induced, then contents of the emotion induction protocol is changed based on the increase/decrease patterns of the extracted bioparameters. Physical signals are then outputted again to the user ***to apply a different stimuli*** to the user's body based on the changed emotion induction protocol (See, Specification at page 11 and Figure 4). This process may be repeated until the desired emotion has been induced in the user.

The Office Action further states that "a lavender scent may be used to relax an individual on one day, yet that same stimulus may not work in the same fashion if that same user has a cold and is unable to use their sense of smell in the same or similar manner." Because the instant application provides a system and method for inducing emotions based on emotion induction protocols that selectively control visual, auditory, olfactory, and tactile stimuli, the system and method becomes impossible to apply to a user who is without the use of these senses (visual, auditory, olfactory, and tactile senses). Though this is an unfair example to apply in this case, a user without his or her olfactory senses may still be induced with a desired emotion

via emotion induction protocols that selectively control the other stimuli (e.g., visual, auditory, and tactile).

Further, there is not a requirement that an invention needs to work at 100% efficiency 100% of the time. In fact, no method or machine does since it is always possible to devise a test or circumstance that would dictate failure. If the Examiner is aware of some body of law that stands for this, he is asked to specifically cite it.

For at least these reasons, Applicants submit that claims 1-32 recite not only a practical application that provides a useful, concrete, and tangible result, but also recite enumerated categories of statutory subject matter under 35 U.S.C. §101 that do not fall within the judicial exceptions of laws of nature, natural phenomenon, and abstract ideas. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §101 of claims 1-32 be withdrawn.

Rejections Under 35 U.S.C. §112

35 U.S.C. §112 - 1st paragraph

Claims 1-32 were rejected under 35 U.S.C. §112, first paragraph, on the basis that the claimed invention is allegedly not supported by either a specific and substantial asserted utility, a credible asserted utility, or a well established utility, and in view of the rejection of the claims under 35 U.S.C. §101, one skilled in the art allegedly would not know how to use the claimed invention. Applicants respectfully traverse the rejection for at least the same reasons presented with respect to the rejection of claims 1-32 under 35 U.S.C. §101.

Thus, Applicants submit that claims 1-32 recite patentable subject matter in accordance with 35 U.S.C. §101 that does not fall within a judicial exception, so that one skilled in the art would know how to use the claimed invention in accordance with 35 U.S.C. §112, first paragraph. Accordingly, Applicants respectfully request that the rejection of claims 1-32 under 35 U.S.C. §112 be withdrawn.

35 U.S.C. §112 - 2nd paragraph

Claims 1-14 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. In particular, the Office Action states that it is unclear if the modules recited in claim 1 are software or algorithms, or if the modules require structure.

Applicants submit that the modules recited in the instant application are system components and are not software or algorithms alone. Thus, it is Applicants' contention that the modules may include software or algorithms for processing and/or calculation of bioparameter data, for example. Applicants contend further that the recited modules are provided with structure. For example, claim 3 recites "***the emotion induction module comprises a bioparameter change model storage unit*** in which change models for the respective bioparameters by emotional states are stored, ***an emotion induction protocol storage unit*** in which the emotion induction protocols configured to induce physiological signals for the emotional states are stored, and ***an emotion induction control unit*** that compares the increase/decrease patterns of the respective bioparameters extracted from the

biosignals with the bioparameter change models and changes the emotion induction protocols depending on comparison results."

Thus, Applicants submit that the recited modules in claims 1-14 are provided with structure in accordance with 35 U.S.C. §112, second paragraph. Accordingly, Applicants respectfully request that the rejection of claims 1-14 under 35 U.S.C. §112 be withdrawn.

New claims 33-34

New claims 33-34 have been added to the instant application for readability and clarification purposes. Applicants submit that no new matter has been added and that these claims are patentable for the reasons set forth above.

Conclusion

Applicants note that the Office did not reject claims 1-32 under 35 U.S.C. §§102 or 103. Since the Office is directed to evaluate the claims for compliance with 35 U.S.C. §§102 and 103 when making a rejection under 35 U.S.C. §101 (see, e.g., MPEP §2106(B)), it is implicit in the Office action that the Office has not identified references that would support a rejection of claims 1-32. Accordingly, when the above noted rejections under §§101 and 112 are withdrawn, the claimed subject matter should be in condition for allowance. If the Examiner subsequently rejects any of the pending claims under §§102 or 103, the rejection would be a new grounds. Accordingly, any such rejection in an Office action should be made non-final.

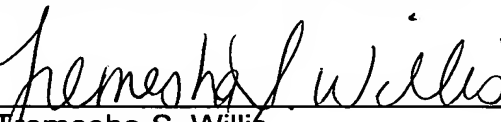
Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-32 are allowable, and that this application is in condition for allowance. Accordingly, Applicants request a favorable examination and consideration of the instant application. In the event the instant application can be placed in even better form, Applicants request that the undersigned attorney be contacted at the number below.

Respectfully submitted,

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